Grazing Cover Crops (example)

Step 1 - Determine available forage from measuring average height of cover crops

Available Forage

Total production minus the minimum allowable residual.

Ex. total prod. = 5,000 lbs./ac. - min. residual (1,200 lbs./ac.) = available forage: 5,000 - 1,200 = 3,800 lbs./ac.

Total Production Estimates

Warm-season dominant: first 4 inches = 1,275 lbs./ac. + 200 lbs./ac. per inch of height above 4 inches

Cool-season dominant: first 4 inches = 140 lbs./ac. + 250 lbs./ac. per inch of height above 4 inches

Mix of cool- and warm-season: roughly 215 lbs./ac. for each inch of height

Warm- or cool-season dominant: 140 first 4 in. + 250 lbs./inch X 18 Height - 4 in. = 4640 Total air-dry production

Mix of cool- and warm season: _____ total inches X 215 lbs./ac. = _____ Total air-dry production

Available Forage

Warm- or cool season dominant: 140 first 4 in. + 250 lbs./inch X 4 resid. ht. - 4 inches = 1140 Residual air-dry production

Mix of cool - and warm-season: _____ min. residual ht. X 215 lbs./ac. _____ residual air-dry prod.

Total production from above: 4640 - residual air-dry 1140 = Available forage 3500

Step 2 - Determine usable forage based on utilization

Utilization %: The utilization percent is higher the shorter the occupation period due to less waste.

The occupation period can be shortened by fencing out smaller areas for grazing.

0.5-1 day: 80%; 2 days: 75%; 3 days: 75%; 4 days: 70%; 5 days: 65%; 6-30 days: 60%

Usable Forage Supply

3500 lbs./ac. Available forage X 65% % utilization = 2275 lbs./ac. usable forage

Step 3 - Determine forage demand from animals

Forage Demand

1200 lbs. average animal X 3% of body weight/day = 36 lbs. forage required/AU//day

X 100 number of animals = 3600 Total Forage Demand for the herd per day

Last Step - two options

You know the number of <u>acres</u>, but need to determine the number of days they can graze:

2275 lbs./ac. usable forage (Step 2) X 40 acres = 91000 Total lbs.

91000 Total lbs. ÷ 3600 Total Forage Demand (Step 3) = 25 days

You know the number of <u>days</u> you want to graze, but need to determine the number of acres:

3600 Total Forage Demand (Step 3) X 5 days = 18000 Total lbs.

18000 Total lbs. ÷ 2275 lbs./ac. usable forage (Step 2) = 8 acres

(This second option can be used if you have a larger area, but want to divide it up into smaller paddocks in order to increase utilization and increase the overall number of days that grazing can take place.)

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Mix of cool- and warm-season: roughly 215 lbs./ac. for each inch of height

Warm- or cool-season dominant: _____ first 4 in. + _____ lbs./inch X _____ Height - 4 in. = _____ Total air-dry production

Mix of cool- and warm season: _____ total inches X 215 lbs./ac. = _____ Total air-dry production

Available Forage

Warm- or cool season dominant: _____ first 4 in. + _____ lbs./inch X _____ resid. ht. - 4 inches = _____ Residual air-dry production

Mix of cool - and warm-season: _____ min. residual ht. X 215 lbs./ac. _____ residual air-dry prod.

Total production from above: _____ - residual air-dry _____ = Available forage _____

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Utilization %: The utilization percent is higher the shorter the occupation period due to less waste.

The occupation period can be shortened by fencing out smaller areas for grazing.

0.5-1 day: 80%; 2 days: 75%; 3 days: 75%; 4 days: 70%; 5 days: 65%; 6-30 days: 60%

Usable Forage Supply:

_____ lbs./ac. Available forage X _____ % utilization = _____ lbs./ac. usable forage

Step 3 - Determine forage demand from animals

Forage Demand

_____ lbs. average animal X 3% of body weight/day = _____ lbs. forage required/AU//day

X _____ number of animals = _____ Total Forage Demand for the herd per day

Last Step - two options

You know the number of <u>acres</u>, but need to determine the number of days they can graze:

_____ lbs./ac. usable forage (Step 2) X _____ acres = _____ Total lbs.

_____ Total lbs. ÷ _____ Total Forage Demand (Step 3) = _____ days

You know the number of <u>days</u> you want to graze, but need to determine the number of acres:

_____ Total Forage Demand (Step 3) X _____ days = _____ Total lbs.

_____ Total lbs. ÷ _____ lbs./ac. usable forage (Step 2) = _____ acres

(This second option can be used if you have a larger area, but want to divide it up into smaller paddocks in order to increase utilization and increase the overall number of days that grazing can take place.)